

5. From the London

THE EYE.

BY

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LATE SUPERINTENDING SURGEON OF THE BOMBAY EYE INFIRMARY,

IN THE HON. EAST INDIA COMPANY'S SERVICE.

ILLUSTRATED BY OFFICIAL REPORTS

OF

53,359 OPHTHALMIC CASES

TREATED BY HIM IN THAT GOVERNMENT INSTITUTION.

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ADVERTISEMENT.

THE object of the following pages is not to consider or treat as distinct every morbid affection of the EYE, which has a nosological place and name assigned it in Ophthalmic Surgery, but rather to simplify or consider all in the abstract as one disease differing only in shade, the offspring of a common parent—*Constitutional derangement*—and subject to the same general laws of treatment as other diseases in the human body, aided by approved local applications.

The great prevalence of Cataract in India, and the number of operations I have in consequence performed, have enabled me to point out what I

consider to be modifications or improvements on those in general use.

If the result of my observations, under the most extensive experience, shall be found to add something new to this interesting branch of medical science, I shall have no cause to regret submitting them to the public.

WILLIAM JEAFFRESON.

21, South Audley Street, Grosvenor Square,
December, 1839.

AUTHOR'S

MODE OF TREATING CATARACT,

§c. §c. §c.

It was a favourite observation of Lord Bacon, that before a man could make a discovery in any particular science, he must call in the aid of other sciences, and see the whole as it were from a cliff—every branch of human knowledge being so connected and associated with some other by one great common principle, that the man who should confine himself to a distinct branch only, could never get beyond the minutiae of its details.

It was my fortune to be educated under a master, who never for a moment lost sight of this philosophical view, the late Mr. Abernethy—a man, who was ever more anxious to show happy analogies in nature, than to fritter away truth by fine spun differences and distinctions.

Deeply impressed with the value of every kind of reasoning, which tends to simplify knowledge, I have been enabled by a close observation of *Ophthalmic Disorder*, in connection with the great principles which enter into the doctrine of life in all its phases and revolutions,

to reduce to a *common law* a multitude of morbid states, which from their apparently conflicting character, men less favoured by circumstances have been led to treat as so many *distinct* and *separate* disorders.

The great field of my labours was the *Bombay Eye Infirmary*; an Institution in which I held for many years the situation of Superintendant Surgeon, having been recommended to the Court of Directors by Mr. Travers, as a fit person to undertake its management.

Of the extensive opportunities I in consequence enjoyed for the cultivation of the Ophthalmic branch of medicine, the reader may form some notion when told, that in little more than ten years, as appears by the Official Reports of the Institution, upwards of FIFTY-THREE THOUSAND cases of disease of the Eye came under my own *sole* management.

Of the manner in which I executed the important task assigned to me, it does not become me to speak; but the handsome and unlooked-for address with which the principal Native Inhabitants of Bombay honoured me on the eve of my departure from their Presidency for the benefit of my health, together with the splendid Service of Plate which accompanied it, demand the warmest expressions of my gratitude*.

The following is an official Abstract of the diseases treated in the Bombay Eye Infirmary, from January 1824, to October 1834, during which period the institution was under my exclusive management.

* For this Address and my Reply, see *Bombay Courier*, June 19, 1830.

ABSTRACT.

| Names of different Diseases treated in the Bombay Eye Infirmary, from January 1824, to October 1834. | Number of each Disease. | Restored to per- fect sight by ope- ration or other treatment. | Restored to an use- ful degree of sight or relieved. | Not treated, be- ing incurable. | Died. |
|--|----------------------------|---|--|------------------------------------|-------|
| Cataract | 7334 | 5517 | 1817 | ... | ... |
| Amaurosis (various degrees of) | 3615 | 1432 | 2183 | ... | ... |
| Leucoma | 918 | 54 | 864 | ... | ... |
| Nebula | 2530 | 2210 | 320 | ... | ... |
| Ophthalmia (various degrees of)... | 12128 | 12077 | 51 | ... | ... |
| Ulcer of Cornea | 3402 | 2416 | 986 | ... | ... |
| Granulous Eye-lids..... | 3372 | 3308 | 64 | ... | ... |
| Fistula Lachrymalis | 281 | 197 | 84 | ... | ... |
| Staphyloma | 652 | 82 | 570 | ... | ... |
| Fungus Hæmatodes | 25 | ... | 18 | ... | 7 |
| Iritis | 2023 | 1963 | 60 | ... | ... |
| Hydrophthalmia | 71 | 8 | 63 | ... | ... |
| Lippitudo and Tinea | 4332 | 4332 | ... | ... | .. |
| Glaucoma | 310 | 26 | 284 | ... | ... |
| Hemeralopia (Day Blindness) | 14 | 8 | 6 | ... | ... |
| Nyctalopia (Night Blindness) | 470 | 340 | 130 | ... | ... |
| Strabismus, or Squint | 23 | 6 | 17 | ... | ... |
| Closed Pupil | 820 | 461 | 359 | ... | ... |
| Pterygium | 1324 | 1120 | 204 | ... | ... |
| En and Ectropium | 467 | 439 | 28 | ... | ... |
| Tumours (various kinds) | 568 | 568 | ... | ... | ... |
| Totally and Irrecoverably Blind | 8680 | ... | ... | ... | ... |
| Total | 53359 | 36564 | 8108 | 8680 | 7 |

It will thus be seen, that during the period of my attendance, *Fifty-Three Thousand, Three Hundred and Fifty-Nine* cases of *Ophthalmic Disorder* came under my exclusive treatment, embracing every description of Eye-Complaint, which has ever claimed the attention of medical men.

Of these I had the felicity to restore to perfect sight nearly SEVEN THOUSAND utterly blind persons; namely, *One Thousand, Four Hundred and Thirty-Two* suffering

from *Amaurosis*, or nervous blindness ; and *Five Thousand, Five Hundred and Seventeen* afflicted with *Cataract* — the subjects of *Sixty-Seven* of which last were BORN BLIND.

The amaurotic cases were principally cured by internal remedies, and by the use of a native preparation, which I will more fully notice in the sequel, not only as connected with this disease, but for its great value in many other kinds of ophthalmic affection. The cataracts I dispersed by what I conceive to be an improvement upon the operation of Couching now in general use.

The reader will observe, that I have not included in this statement of blind persons cured by me, the immense number of cases of *leucoma*, *nebula*, or “pearl” as it is vulgarly called, &c., which I cured, or relieved by medicinal and other applications.

A short residence in China, which I was obliged to make for the benefit of my health, enabled me still further to perfect my acquaintance with Ophthalmic Medicine. Since my return from India, I have visited Egypt, Greece, and Turkey, countries where diseases of the Eye have been immemorially prevalent ; and I have also availed myself of numerous opportunities of contrasting the various results of the different modes of treatment pursued by the principal Continental surgeons and physicians, who apply themselves more particularly to this branch of practice. It will thus be seen, that in the number and extent of my opportunities of acquiring knowledge, I have not been surpassed by any Oculist however eminent : in the operative department I know not one whose experience exceeds my own. Having premised this much, I will now enter upon the nature

and treatment of ophthalmic disease generally ; and first, of what is termed Inflammation of the Eye, or

OPIITHALMY.

When the patient has a burning sensation in the eye, with more or less redness of that portion, which in health is of a bluish white colour (and is familiarly known by the phrase, “white of the eye”) he is then said to have Ophthalmia, or a “sore eye.” Now as diseases of this organ differ in nothing from diseases of any other portion of the body, it will depend entirely upon the notions, which the practitioner entertains of morbid action generally, what kind of treatment he will judge necessary to put in practice in this particular case.

If he be a disciple of the “Pathological School,” the lancet, leech, and blister will be his immediate resource. On the contrary, if his mind be imbued with the doctrine of “peccant humours,” purgative will follow purgative in rapid succession. God help the poor patient in either case ! for whether his eye get better or not, his body will be sure to get worse. But as many cases of disease will get well without physic of any kind, patients must occasionally *escape* under every system, whether good, bad, or indifferent. Of the *Bad*, the bleeding and purging systems I consider to be examples. Of the *Indifferent*, I may instance the “medicine expectante” of the French, or the infinitesimal mode of practice of the “homœopathists,” in both of which last the patient has at least the advantage of being left pretty much in the hands of nature. What then are we to consider as a specimen of the *Good* ? Attentive observation has confirmed me in the full conviction, that all affections of the eye, excepting those

caused by external injury of the organ, or contagion, proceed from a deranged state of the general system ; and therefore the treatment should depend more on attention to this, the real source, than to that kind of tampering, which consists merely in applying local remedies to the entire neglect of the bodily health, on which the only sure improvement of the state of the eye depends. For after improper treatment of ophthalmia, numerous baneful effects, constitutional as well as local, will frequently show themselves, when the primary symptoms appear to be subdued.

Dr. Dickson justly observes, “ Physicians are in the habit of dividing diseases into two classes, namely Constitutional and Local, and treating them as such accordingly ; but properly speaking there never was a purely local disease : so far from this, it is impossible for such states to take place unless produced by local injury, without *the previous condition of entire constitutional disturbance*, of which instead of being CAUSES, as many suppose and teach, they are only *effects, or features*.”

On first perusing this Author’s works *, they struck me much from the extraordinary coincidence I found in them with many of my preconceived opinions ; indeed I may say, I early detected the “ fallacies” of the ophthalmic faculty, and shaped my course accordingly.

This writer advises the total abolition of the lancet ; and I feel convinced, that by an early attention to disease, this too often fatal instrument might be dispensed with. But unfortunately in some instances, patients have for so long a time disdained medical aid, that a crisis may re-

* Unity of Disease, and Fallacies of the Faculty. — II. Bailliere, 1839.

quire the use of it, even at the risk of consequences that might have easily been avoided by an earlier resort to safer, but more slowly working remedies.

I can truly say, that ophthalmia is never a purely local affection, except under the circumstances, as before mentioned, of immediate external injury or contagion. If you question the patient, he will tell you that before the eye became sore, he had not been very well, that he had been more than usually chilly or hot, or both, by *fits* or *periods*, and that his spirits had been at times more or less depressed; in fact, you will find that he had been labouring under the symptoms, or shades of symptom, of intermittent fever: so that you see, to worry the eye with leeches and blisters, or the constitution by bleeding or repeated purgatives, is not the best method of treating this disorder.

The first business of the practitioner is to attend to the constitution of the patient; to prescribe remedies applicable to the different states of the body during its different revolutions. In most cases, this alone is sufficient for every purpose; the Eye recovering its usual appearance, as the general health becomes amended. But in cases of a chronic, or scrofulous nature, the invaluable effects of the native remedy, to which I have already casually alluded, are strikingly exemplified.

Soon after my arrival in India, I became acquainted with the virtues of this celebrated Eye-Medicine. But the *Hukeem*, or native doctor, by whose family it had been used for several generations from father to son, would not for any consideration disclose the secret of its composition. Strange to say, this *liquid* instead of being applied to the Eye, is dropped into the Ear! I must confess I was at first prejudiced against this remedy, but

hearing its virtues so constantly extolled by those who had used it, I determined at last to give it a trial, and I was certainly astonished at its effects. To the intimate connection existing between the Eye and Ear, exemplified by the ramifications of the fifth and other nerves, which supply *both* organs with sensation, we are to attribute, doubtless, the admirable effects produced by its peculiar mode of application. Had not this connection been so well known to the Profession, I should certainly have introduced into this place an Anatomical Drawing of these parts when dissected, in illustration of it. The Native, who possessed the secret of preparing this remedy, did not appear to have any particular theory as to the mode of its action, for when I described and showed him this nervous communication, he could not conceal his satisfaction. To the same nervous sympathy, doubtless, we must attribute the beneficial influence of blisters, when applied *behind the ears*, in certain affections of the Eye. Applied in the manner before stated, I have seldom used this medicine without the most marked success in most kinds of ophthalmic disease; and I have obtained similar satisfactory results since my return to England, where I have employed it both as a simple local application, and in combination with other medicines local as well as general.

As might *a priori* be expected, it has also proved most beneficial in many kinds of DEAFNESS, particularly in those accompanied by morbid secretions: indeed it became so generally known and esteemed at the Bombay Eye Infirmary, that I encouraged Deaf Patients to apply to me; and I latterly kept a regular Register of the applicants for relief, which was transmitted with the other official reports of that Institution, showing that upwards

of *Two Thousand Three Hundred Deaf Persons* had been cured or relieved chiefly by the use of this application ; and although it cannot be as the venders believed, a specific in every case of disease of the Eye, yet I unhesitatingly avow, that it is one of the most invaluable medicines with which I am acquainted. The application of it is unattended with pain, or the slightest danger to either organ ; and from its peculiarly soothing effects, I am induced to think some preparation of opium, or other sedative, enters into its composition. It is one of the many useful medicines prepared and used by Asiatics. To India we owe, among numerous other valuable remedies, Croton oil, Stramonium, Arsenic, and Castor oil. Many more yet remain to be discovered, whose virtues when investigated may lead us to hope, that they may become of the utmost benefit in assisting us to combat disease in all its multifarious shapes. By combining native experience with European theory and skill, the greatest advantages may be obtained in the practice of the healing art. Indeed, with the aid of this and other Asiatic medicines, I have been able to achieve a success in ophthalmic practice, which was a constant source of astonishment to the natives themselves.

It happens sometimes, that violent or neglected inflammation terminates in the formation of purulent matter, which shows itself in the anterior chamber of the eye ; this, if allowed to collect in any quantity, by its mechanical pressure alone may cause an ulcer or absorption of a portion of the transparent cornea of the eye, and the whole contents of the orbit are sometimes protruded ; in fact, the eye is lost. I cannot too early recommend a cautious puncture of the cornea to evacuate the matter. In illustration, I may mention an interesting case, in

which I was obliged to do this seven or eight times. The subject of it was Captain Morgan, who commanded a China ship (the Pascoa). The cicatrices of these repeated punctures it is true remained, but having been all made below the pupil, the sight was not in the least injured. I performed the same operation twice on a favourite domestic of the present Earl of Clare, his lordship's butler, which was even more successful, inasmuch as it left the sight perfect without any scar.

In some of the more indolent, or chronic forms of inflammation, a slightly stimulating application may be advantageously added in the treatment—varying the agent according to peculiarity of constitution; for what will improve one case, will sometimes aggravate another. The patient's feelings are in general the best guide whether a remedy should be continued or changed for some other which may be found on trial to suit him better; a remark equally applicable to local as well as general treatment.

Such is the very simple mode of treating ophthalmia. But then it often happens that I am consulted in cases, where from previous mal-practice or otherwise, the disorder has extended to the cornea, or clear part of the eye, and the sphere of vision thus becomes involved. In these cases *nebulæ*, or leucomatous specks, are very common effects of the previous mal-treatment. My practice here consists chiefly in improving the general health with such medicines as the experience of the case justifies me to consider as tonics, every case differing from another in this respect; so that no man can certainly predicate what will be the best remedy, until he has felt his way with one or more medicines, changing them according to circumstances. The application of nitrate of silver to the

speck is frequently followed by the best results; and when small, such speck often disappears altogether under its repeated employment.

Did space permit, I might proceed to enumerate many other modifications of disease of the eye to which separate names are usually applied; but as these after all differ more in shade or degree, than in any thing else, it would be a work of supererogation perhaps to do so, the more especially as the treatment is founded for the most part on the same principles.

It must however be admitted, that there are some formidable affections of the Eye, which seem hitherto to have bid defiance to all skill. An operation, frightful to contemplate, is in such cases our only alternative, namely the removal of the organ; and this moreover is imperatively required, if we wish to preserve life. Every experienced surgeon will see I allude to fungus hæmatodes, or cancer. Fortunately the disease is of rare occurrence. The two following cases will explain the painful position in which a surgeon is placed, when called upon to give his opinion.

CASE OF FUNGUS HÆMATODES.

A remarkably fine and interesting child, three years of age, only daughter of Captain S —, who commanded a China ship, was brought to me in 1825, in my official capacity of Surgeon to the Bombay Eye Infirmary, the mother having observed something peculiar, resembling a squint, in the left eye. Having attentively examined it, I fancied I saw some discolouration of the chrystalline lens; the sight was imperfect, the pupil more contracted than in the other eye, more particularly in a strong light. In order to form a more correct diagnosis I used the belladonna,

which by its power of dilating the pupil, on the following day enabled me to discover, deeply seated in the posterior part of the eye, a tumour of the size of a small pea. This, from its appearance, might in any other situation have been taken for a finely polished ruby. Unwilling immediately to alarm the parents by informing them of the formidable nature of this disease, I put the child upon a constitutional plan of treatment; but at the expiration of three weeks the tumour had decidedly increased in size, the colour had become more dull, and a large arterial vessel was distinctly seen with smaller ramifications beautifully spreading over it. I now considered it my duty to disclose to the parents my opinion of the case, and as the child possessed sufficient strength, I advised extirpation, and suggested the great importance of this being done without delay, as the only chance of saving the child's life. Before I made this communication, they had a high opinion of my judgment in these matters; but a proposition so repugnant to their feelings, they thought proper to treat with the utmost contempt, nor would any reasoning of mine induce them again to let me see the poor child. As the effects of the belladonna went off, the extent of the disease was again concealed, which before this they had an opportunity of seeing most distinctly themselves, and this perhaps confirmed them in the hope and belief, that nothing of serious importance was the matter. In this delusive hope they were strengthened by the opinion of a surgeon, since dead, who had the reputation at least of great skill as an oculist. This gentleman prescribed an eye-water! and allowed the parents to take the child home, a distance of some hundreds of miles. I heard nothing more of the case for about five months, when the mother

again brought her to Bombay, and with the utmost sorrow and contrition, entreated me again to see her child, as she said for the purpose of removing the eye; in short, to do any thing I pleased. The tumour had now increased to the size of a large goose's egg, hanging nearly as low down as the chin, with a copious discharge, and of a smell so offensive, that the house, to say nothing of the room, was scarcely bearable. The child had become greatly emaciated, its sufferings most intense: nothing remained of course to be done, but to soothe as much as possible its sufferings, which fortunately terminated two days after in death.

I introduce another case of the same disease, which occurred about the same time with a different result.

CASE.

Some months subsequently to the termination of the above case, a Hindoo child, nearly one year older than the one just mentioned, was brought to me with the same disease. The subject of it was apparently equally healthy, and the eye resembled in many respects the former, but no blood-vessels could be seen over the tumour, which was of a dullish brown colour. Having watched the case for some time, and observing a progressive growth, I extirpated the eye. The patient did not suffer beyond the necessary pain of the operation and inconvenience of the loss of the eye. I occasionally saw this child for several years after the operation, which was in every respect most successful.

I shall now proceed to make a few remarks on *Amaurosis*, or *Gutta Serena*, which from early neglect, often ends in total blindness.

AMAUROSIS.

This is a medical term for that kind of blindness, which from the Eye maintaining its perfectly healthy appearance is justly considered to arise from palsy of the nerve of sight, technically called the “optic nerve.” This disease may be the result of any thing in nature calculated to injure the general health, or it may arise from external injuries—a very slight blow often laying the foundation of it, particularly in such persons as have an hereditary predisposition. Improper food is a frequent cause: I have known a whole ship’s company affected with partial, or night blindness, from living for some time on unwholesome rice, and I have also known it to affect persons who have exposed themselves, by sleeping on deck, to the glare of a full moon. Nursing is sometimes a cause: I knew a lady, the wife of one of the principal merchants in Bombay, who after several confinements was always attacked with blindness, which subsided when she ceased to nurse. It may also be the effect of worms. A Parsee child, who was under my care, had been perfectly blind for nearly six weeks, but after passing thirty-seven large worms speedily recovered his sight. Indeed so frequently is partial defect of vision connected with derangement of the stomach and bowels, that many of my readers must be acquainted with the dimness of sight caused by what is usually termed a bilious attack, or the occasional annoyance of black floating specks (*muscæ volitantes*), or flashes of fire before the eye, all of which are most important indications of nervous functional derangement, and which oftentimes, when overlooked or neglected, end in structural disease or complete amaurosis.

That too much light or glare is productive of this affection, may be inferred from the following historical fact. The tyrant Dyonisius was in the habit of confining state prisoners for a certain period to a dark cave, which still indeed bears his name. He then caused them suddenly to be exposed to the meridian sun, the effect of which was perfect amaurosis or total loss of vision. When at Syracuse I visited this identical cave, and I can easily imagine the effect of such a proceeding, particularly on prisoners who had probably been long kept on a debilitating diet.

Slighter causes often produce the same or similar effects. I have at this time a patient under my care (Lieut. L——, of the Bengal Army), who about three years ago kept his eyes inadvertently fixed on an eclipse of the sun, whilst travelling outside a stage-coach, without any screen before them. For many months he has suffered from these specks to a most distressing degree.

The One Thousand, Four Hundred and Thirty-Two cases of amaurosis cured by me in the Bombay Eye Infirmary, yielded for the most part to the system of treatment already detailed, with the exception of some few cases, which got well apparently by the efforts of nature alone. A striking instance of the latter is detailed in the following case, which is most encouraging, inasmuch as it shows that no case of blindness of this description can ever be considered hopeless, from whatever cause arising.

CASE.

Captain Fair, commanding a troop of cavalry at Hyderabad, in his Highness the Nizam's Service, whilst on horseback was suddenly struck by a *coup de soleil*. He was conveyed home in a palanqueen, and remained some days

in a state of almost total insensibility. The most active antiphlogistic treatment was used by his medical attendant, but the sight, which had from the first entirely left him in both eyes, did not return with the gradual improvement of the other symptoms. Soon after this he was advised to come to Bombay, a distance of three or four hundred miles, to consult me. He arrived in a most debilitated state, and so entirely blind as not to be able to distinguish the window though opened and in the strongest light. The same vacant stare, generally observable in gutta serena, was equally conspicuous in this case, but the iris nevertheless still contracted and dilated in light and shade, as in the healthy eye, but in a less degree.

This, the only favourable symptom, gave me encouragement to put him upon a steady course of mercurial treatment, keeping up at the same time counter-irritation by repeated blisters on the temples, and using strong stimulating applications. But as no good result arose, this treatment was discontinued for a course of tonics, which was equally unsuccessful. He returned to Hyderabad, and in consequence of his total blindness, was obliged to retire from the service. I had always given it as my opinion, that so long as sensibility to light remained in the iris, the case ought not to be abandoned as entirely hopeless. This made him anxious that I should again see him at the expiration of a year and a half, when he a second time came to Bombay. He arrived quite an altered man in appearance, having ridden all the way on a rough-paced elephant. But the eyes were much in the same state as when I last saw him. I again repeated the former plan of counter-irritation by blisters and by electricity, a tonic course of quinine with a generous diet, requiring him to take more wine than he previously had

been accustomed to, being a man of remarkably abstemious habits; hard and regular exercise before and after sun-set on a steady horse along the beautiful sands of the Back Bay. He was also ordered to use cold seawater shower-baths. In this state of things I was suddenly called upon one morning to attend him, and found that he had been attacked with every symptom of Cholera of the most violent kind, from which he however under proper remedies recovered; but so great was the *constitutional change* produced by this sudden and unexpected attack, that the sight quickly returned, so rapidly indeed, that after a few days it was as perfect as ever. I attributed the cure to the cholera itself, and not to any remedies I prescribed for that disease.

I could enumerate many other remarkable and interesting cases of recovery, after long-continued blindness from other causes, but shall close this part of my subject by remarking, that amaurosis, like cataract, is frequently hereditary. We now come to

CATARACT.

The eye of man, in common with that of other animals, is furnished with a natural *lens*, which in the healthy state answers the purpose of the double convex glass of a spectacle. Like the glass of a good spectacle, the chrysaline lens of a healthy eye is perfectly transparent, but like the same spectacle-glass, whitened or rendered opaque by fire or other agency, the natural lens becomes so altered by disease as to prevent the rays of light from reaching the retina, or nervous expansion which transmits images to the brain. When this change takes place, it is then termed the Cataract. In the state of health, the pupil, or central portion of the eye, is beautifully and

intensely black : in that of cataract or disease, it is of a whitish gray. That it is frequently a constitutional disease cannot be doubted, because we know that like amaurosis it is very often hereditary. Now how does this disorder arise ? Like every other hereditary disease, it is a development of general constitutional change. In the commencement, if you inquire of the patient, he will perhaps tell you that he is in excellent health, which simply means that he has not suffered any or very acute pain. Examine him more closely, and you will find that he has perhaps suffered from slight headaches, depression of spirits, heats and chills, more or less marked ; and that *on some days he sees better than on others*. Now this is another evidence of the correctness of the doctrine, that all diseases, in the commencement at least, are remittant, and it shows us moreover how cataract, like every other disease, may be *arrested*, and when slight may often be perfectly cured by attending to the constitution. The best practice in such cases is to administer tonic medicines, in combination with minute doses of calomel. In this way the practitioner may bring about the most fortunate results ; and he is also provided with a principle, which will enable him in the case of patients, in whose families such disease is hereditary, to prevent its appearance altogether. This is a hint worthy of acceptance to individuals so situated ; and I beg such persons to pause and reflect, whether it is not better to have their vision *preserved* by early attention to this suggestion, than to sink gradually into a state of total blindness, from which nothing but an operation can relieve them. I am satisfied I have in numerous instances prevented cataract from being developed by timely attention to this. An operation is a fine thing doubtless, and much credit attaches

to the successful operator; but the reader may rest assured, that much greater praise is due to him, who shall by a good constitutional treatment prevent the necessity for its performance altogether. Yet upon this subject, the public at large are so short sighted, that they are less disposed to thank the one than the other. The conduct of the multitude here is just like their conduct in every thing else, for they think much more of the general, who shall bring a war to a successful termination, than of the statesman, who by his politic measures might have prevented the necessity of taking up arms in the first place. I have always thought, with my respected teacher Mr. Abernethy, that “the highest triumph of surgery is to cure without an operation.” But let it be remembered, that so far from condemning operations when unavoidable, I myself have had to operate in upwards of seven thousand cases of this disease. The *abuse*, not the use of instruments, is what I deprecate.

“Principiis obsta,” should be the motto of every honourable practitioner. But it too frequently happens that the surgeon is only consulted when the cataract is fully formed, that is, when the atoms composing the lens have by a morbid process of decomposition so changed their relative position to each other, as to become perfectly opaque. The cataract, in the language of common use, is said to be “ripe,” and certainly it is then sufficiently ripe for an operation, for nothing that I am acquainted with will in this stage restore it to its pristine state. We have now no alternative left, but to consider the best mode of recovering vision by the safest operation.

The two operations in common use are, Depression and Extraction. Depression, or Couching, consists in forcibly removing by a needle the opaque lens from the axis of

vision, into the posterior part of the eye. Extraction consists in making a sufficiently large incision with a knife in the transparent part of the eye, to allow the diseased lens to escape from the orb altogether. I have had ample opportunities at the Bombay Eye Infirmary* of performing both these operations, and testing their merits. Generally speaking Couching is a bad operation, and Extraction a worse; for in the first, *considerable*, and in the second, very *great* injury is done to all the textures of the eye. Indeed the late Baron Wenzel is said to have affirmed, that he had destroyed a hat-full of eyes in *learning* to *Extract*! Though not equally dangerous, still by couching, as it is usually performed, hundreds of curable eyes to my knowledge are daily lost.

An operation infinitely more successful than either, and I have tried it in upwards of five thousand cases, is a modification of couching. It consists simply in the introduction of a needle into the substance of the lens, and there gently breaking it up, without disturbing its position in the least; so that, unlike the common mode either of couching or extraction, the smallest possible injury is done to the other parts of the eye. The operation is

* From the alarming extent of Ophthalmia throughout the East, and the blindness consequently prevailing in the Indian army, the East India Company were induced to establish an Eye Infirmary at each of their presidencies. The formation of that at the Bombay presidency, was entrusted to my superintendence in 1823. The last was the largest and most liberally conducted Eye Infirmary extant, making up one hundred and twenty beds, which were always occupied by natives of all casts and denominations. The establishment of these Infirmaries is one of many proofs of the humanity of the Honourable Court of Directors.

applicable to every case, except when the lens is so very hard (which rarely happens) as not to admit of being thus pierced and lacerated. After the operation, the fragments of the lens are left for absorption, a process which may be facilitated by the administration of minute doses of mercury. In a month or six weeks, the patient is cured, the broken fragments in that period disappearing one by one, until the sphere of vision becomes as bright and unclouded as in the healthy state.

The only objection that can be urged against this peculiarly delicate mode of operating, if an objection it can be called, is that it sometimes, though rarely, requires to be repeated: when necessary, this may be done with the greatest safety any number of times. In short, the *ultimate success* of every operation depends more upon gentleness, as has been properly explained by Mr. S. Cooper, than any particular rapidity of performance. Referring to the operative success of the late Mr. Saunders, Mr. Cooper says, "For my own part I am so fully convinced of the mischief which has been done to the eye, by the rash boldness, awkwardness, and unsteadiness of numerous operators, that it appears to me, the inculcation of gentleness and forbearance in operations for *cataract*, is the bounden duty of every man who has occasion to write on the subject. Great manual skill and invariable gentleness, indeed, seem to me to have had more share in rendering operations successful, than any peculiarity either in method or in the instruments employed." The same writer observes, "I cannot help remarking how judicious it is never to attempt too much at one time, in any mode of *couching*. It happens in this as in most other branches of operative surgery, that celerity is too often mistaken for skill; the

operator should not only be slow and deliberate in achieving his purpose, but he should be taught to consider that a *repetition of couching, may, like the puncture of a vein, be safely and advantageously put in practice again and again*, and with far greater security than if for the sake of appearing expeditious, or avoiding the temporary semblance of failure, a bolder use of the couching needle should be made than the delicate structure of the eye warrants." It occasionally happens, as we have already said, though rarely, that the lens is so hard that it is impossible to put in practice the operation to which I give the preference. In this case I gently depress it, taking especial care to break down as few of the vitreous cells as possible.

It is to the neglect of this judicious precaution, that the failure of couching so frequently depends; for when unnecessary force has been used to displace the lens, it must be made at the expense of great injury to the vitreous humour, and the lens is thus either thrust down upon the retina or nerve of sight, or by its own specific gravity eventually sinks down by degrees upon it, so as by its continued pressure entirely to paralyse this delicate tissue.

The dangers and difficulties of Extraction may be at once imagined, even admitting Wenzel's assertion was made figuratively. Now as to the instrument or needle employed. Many oculists use instruments of their own invention, modestly christening them with their own names, making as it were the success of an operation greatly dependant on the instrument employed; but surgical instruments are of old parentage, and pretty much of the same construction now as formerly. While at Pompeii, I saw instruments which had been buried in the

volcanic destruction of that city nearly eighteen hundred years ago, scarcely inferior to, or differing much from those now in use. However, in compliance with fashion or custom, I suppose I must have a needle peculiar to my own fancy, begging pardon if it shall be found that I have borrowed the invention, either from my ancestors, or improved upon that of more modern times. A simple operation requires a simple instrument. A sharp lancet-pointed needle, of short and small dimensions, having an uniform thickness of stem, to prevent any escape of the humours, is the instrument I am in the habit of employing; this I introduce through the white of the eye, as in the usual manner for couching, without (as a general rule) any previous use of the belladonna. There are circumstances, of course, which render its application necessary.

Previous to performing any operation, I pay great attention to the general health, and if necessary prepare the system for it; for, without this attention, inflammation of the most violent kind may supervene, however skilfully the operation be performed. But so far from bleeding or debilitating the patient by purgatives, as is the present fashion, my latter experience told me that the nearer I could bring my patient's constitution to the average state of strength and health, the more likely was he to escape after-consequences, inasmuch as a wound heals more readily in a healthy person, than in one who has been reduced by the lancet or otherwise to a *decidedly diseased state*. My remedies, then, are the very reverse of those at present in use; for a day or two before operating, I am in the habit of administering quinine combined with opiates.

Before concluding these observations, I may mention

that cataract is not unfrequently congenital, that is, the patient is born blind with this affection.

The following is one of many cases of congenital cataract cured by me : —

CASE.

When I was on a professional visit to his Highness the late Rajah of Coorg, he requested me to see a favourite retainer in the palace, who was *born blind*, and at that time twenty years of age. I operated on both eyes, and the case was quite successful.

Since my return to England, I operated on the following

CASE OF CONGENITAL CATARACT.

While in Gloucestershire, about two years ago, I was requested by Mr. Colvile, a gentleman, residing at Barton in that county, to see the son of his steward, a child between three and four years of age, who was *born blind*. The cataracts were completely “ripe,” and in a favourable state for operation. This case was also perfectly successful.

When Cheselden first operated on this description of cataract, a great sensation was produced, and the thing was considered a wonder; but many eminent oculists have, since his day, succeeded under similar circumstances: and I only mention these, as two out of SIXTY-EIGHT cases of persons *born blind*, that I have restored to sight by the needle.

As a means of preventing cataract, the native women of India in particular are in the constant habit of using a medicine of a jet black colour, called *Soorma*, which is

not put into the eyes, but is most delicately painted upon the roots of both the upper and lower lashes. It is also used by them to heighten the arch of their naturally fine eye-brows: this adds considerably to their beauty, and they affirm, that it preserves the sight and “keeps the eyes cool.”

I wonder the ladies of England have never imitated them in this; for, unlike rouge, it is perfectly harmless, and contributes infinitely more to beauty, giving even in dark persons that soft oriental look to the eye, which poets and painters so much admire. Some of my countrywomen whom I have persuaded to use it were astonished at its influence; it is an effectual remedy for the insipidity attending the want of well defined eye-lashes, which is so serious a drawback to the beauty of our English blondes. Before I quitted India, a native lady of rank remarking this to me, presented me at the same time with a large supply, and begged me to try it on my fair friends according to her instructions. But jesting apart, I think this a very useful preventive against cataract, absorbing as it must the superfluous rays of light as they fall upon the eyes of very fair persons. Cataract, like every other ophthalmic disorder, is undoubtedly a more frequent disease in India than in England, nor can it be much wondered at, considering the extreme glare at all times, with an equally prevalent neglect of precautionary measures of cleanliness on the part of the natives, in attacks of ophthalmia.

SPECTACLES.

However successful the operation for cataract may be, the patient must ever afterwards wear spectacles having

a double convex lens as a substitute for the natural lens, whose diseased state compelled its removal. This brings me to the subject of spectacles generally.

Space will not permit me to say much on this head : indeed it is most difficult to lay down any precise rules for the choice of them. I need not say that unless suited to the proper focus of the individual requiring them, they must be not only useless, but very injurious. Not only are they necessary after every case of cataract, but for all persons who have either what is called long or short sight. In these last affections the necessity for using them may occur at any age ; but it is a vulgar error to suppose that all persons of the same age require the same kind of glasses. Generally speaking they are resorted to and worn too early in life, sometimes to the injury of the eye.

Spectacles are frequently required as mere eye-preservers, that is to say, to protect the organ, when delicate, from too much glare, arising from whatever cause. In India, where there is constant sun, or in countries where there is perpetual snow, they may be used by every body with advantage : in Egypt they are a great comfort for the treble purpose of keeping off glare, dust, and ophthalmia. When I visited this last country, principally with a view of informing myself on the peculiarity of its ophthalmia, I was forcibly struck with a conviction, that this disease is propagated in a great measure by the myriads of flies that swarm in the bazaars, and settle on the face, chiefly about the eyes. These insects, flitting from face to face, convey the poison from one person to another. May not the Plague be thus propagated ? But in Egypt spectacles are not enough, the European traveller will find even a veil necessary : and a slightly stimulating collyrium,

used two or three times a day, is also a good precaution against the ophthalmia of that country.

It should not be forgotten, that *our* eyes are not framed for the excess of glare of eastern skies, any more than our bare heads are for the extreme heat of the sun, to which the natives expose themselves with impunity.

Eye-preservers for rail-road travelling are also most desirable preventives of accidents. Many persons have applied to me for very severe affections of the Eye produced by the perpetual falling down of red hot spiculæ of coke from the chimneys, more especially while passing under the tunnels. One case I may mention. A gentleman sent for me with his eye so much swollen, and so excruciatingly painful, that I found it quite impossible to open the eye sufficiently wide to see the extent of the injury. It was not until a few days after, when it had partially subsided, that I discovered, and immediately removed a spicula of coke of the size of a small pin's head, which had imbedded itself in the substance of the cornea.

Wire gauze is ineffectual in preventing such accidents, and it is otherwise objectionable.

PREPARING FOR PUBLICATION.

EGYPT AND THE EAST.

BY

MR. JEAFFRESON.